

Application No.: 09/897,416**Docket No.: 30010519-1 US (1509-194)****REMARKS**

The specification has been amended to correct a clerical type error. Some claims have been amended for clarity.

The Office Action summary incorrectly states claims 1-22 and 48 are pending. In fact, claims 1-50 are pending and claims 23-47, 49 and 50 have been withdrawn from consideration.

The indication of claims 5 and 7 containing allowable subject matter is noted.

The amendment to claims 15 and 20 obviates the rejection thereof under 35 USC 112, second paragraph. There is no rationale in the Office Action as to why claim 21 does not comply with 35 USC 112, second paragraph. Apparently, claim 21 is rejected on this basis solely because claim 21 depends on claim 20. Presumably, the rejection of claims 15, 20 and 21 based on 35 USC 112, paragraph 2, is now obviated.

Applicants traverse the rejection of claims 1, 4, 8, 17, 20 and 22 as being anticipated by Candelore, USP 5,861,662. In rejecting claim 1 as being readable on Candelore, the Examiner states (1) column 2, lines 61-64, discloses a tamper resistant sheet and (2) column 2, lines 54-56 discloses an encapsulant material. However, the structure set forth in column 2, lines 61-64 is the same structure set forth in column 2, lines 54-56 as the encapsulant. This is evident from an inspection of the specific embodiments of Candelore. In other words, the protective layer discussed in lines 61-64 of column 2 is the same as the encapsulant material discussed in column 2, lines 54-56.

Applicants support the foregoing analysis of column 2, lines 54-56 and column 2, lines 61-64 by referring to Fig. 2 and the description thereof in Candelore. In Fig. 2, substrate 250 carries on the bottom face thereof epoxy layer 212 that is formed by encapsulation. The top face of substrate

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250 carries passivation layer 240 made, for example, of the dielectric silicon dioxide. The top face of substrate 250 also carries bonding pads 260 and 262, between which is connected bond wire lead 270. The top surface of passivation layer 240 is covered by shield 230, in turn having its top face covered by glassivation layer 220. Encapsulating epoxy layer 210 is formed over the top face of glassivation layer 220 on the upper portions of bonding pads 260 and 262 and embeds bond wire lead 270.

As illustrated in Fig. 3 of Candelore, many different bonding wire or leads are included on a processor of an integrated circuit. The bonding wires extend over components on the integrated circuit.

To read claim 1 on Candelore requires the tamper resistant sheet to be epoxy layer 210. This is because epoxy layer 210 includes bond wire 270, since the Examiner apparently considers the bond wire 270 to be the tell-tale conductive trip and the sheet is required, by claim 1, to include a tell-tale conductive trip. However, if epoxy layer 210 is considered the tamper resistant sheet, how does Candelore disclose an encapsulant material that encapsulates the component, as required by claim 1? Epoxy layer 212 cannot be considered such an encapsulant material because it does not encapsulate the components on substrate 250, i.e., RAM 300, CPU 302, ROM 304 and data encryption standard (DES) processor 306. Instead, epoxy layer 212 is on the bottom face of substrate 250 and does not encapsulate any components on the substrate. In this regard, bonding wires 313, 319, 317, 315 and 341 are in epoxy layer 210 that the Examiner considers to be a tamper resistant sheet having a tell-tale conductive trip, which covers the component. There are no bond wires in epoxy layer 212 and the epoxy layer does not cover any components on substrate 250. Consequently, the anticipation rejection of claim 1 is in error.

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Based on the foregoing, the anticipation rejection of claims 2-4, 8-17, 20 and 22 is erroneous as is the rejection of claims 6, 18, 19, 21 and 48 as being obvious as a result of Candelore.

In addition, many of the dependent claims include limitations not found in Candelore. Other dependent claims include limitations that are not made obvious by Candelore.

For example, claim 2 requires the layers to be of a flexible electrically insulating plastic material. The Office Action states that Candelore discloses this feature in column 5, lines 39-42. In fact, column 5, lines 39-42 refers to bond wires 270. It is true that bond wires 270 are coated with epoxy of layer 210, as is glassivation layer 220. However, there is no indication of epoxy layer 210 being a flexible layer. Flexibility is defined on page 5, lines 14-16 of the application as something that deforms under its own weight, i.e., is non-self-supporting when held horizontally. There is nothing to Candelore to indicate epoxy layer 210 meets this definition of flexible.

The allegation that the Candelore tamper resistant sheet is encapsulated in the material, as alleged in the Office Action with regard to claim 4, is incorrect. As previously discussed, the tamper resistant sheet of claim 1 must be construed as epoxy layer 210 of Candelore. Epoxy layer 210 is an encapsulating agent and cannot be properly construed to encapsulate itself.

To reject claim 8, upon which claims 9 and 10 depend, the Examiner states that Candelore discloses using a PCI (peripheral component interconnect) card as a component and that a PCI card is not precisely flat. First of all, there is no specific disclosure in Candelore of a PCI card. Column 3, lines 45-47, relied on in the Office Action, states the integrated circuit (IC) may be a smart card, a portion of which may be the encapsulating layer. Such a statement does not support the allegation in the Office Action that Candelore discloses a PCI card. Further, there is nothing in Candelore to indicate the tamper resistant sheet is encapsulated in an encapsulant, as claim 9 requires. As mentioned before, the Office Action must consider epoxy layer 210 as the tamper resistant sheet and

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epoxy layer 210, which is an encapsulating agent, cannot be considered properly to encapsulate itself.

The rejection of claim 14 based on Candelore is also incorrect. The Office Action alleges Candelore discloses the features of claim 14 because "Candelore discloses encapsulating a portion of the smart card extends the wire above below the component [sic]." The Office Action relies on column 7, lines 51-57. Applicants are unable to understand the quoted portion of the Office Action. In any event, it is not seen how Candelore discloses first and second sheets having main body portions with a generally flat shape and wherein portions of the tamper-evident and/or tamper-resistant sheets extend between the main body portions of the first and second sheets transversely to the main body portions, so as to extend over side regions of the electronic component. Explanation is requested.

To reject claim 20, the Examiner cites, lines 5, 39-40 of Candelore. However, this portion of Candelore refers to epoxy layer 210, which the Examiner has previously relied on to be the sheet. While Candelore discloses glassivation layer 220, the glassivation layer does not extend over bonding pads 260 and 262 and presumably therefore does not overlay the components illustrated in Figure 3.

With regard to the obviousness rejection of claim 6, the Office Action alleges that it would have been obvious to one of ordinary skill in the art to sandwich the group (ii) layers within two layers of group (i). However, insufficient rationale is stated in the Office Action for this conclusion. The Examiner is requested to indicate why it would have been obvious to use the configuration of claim 6.

In rejecting claims 18, 19 and 48, the Examiner takes official notice that tampering attempts are typically timestamped. Applicants request proof of this official notice and ask the examiner to

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indicate why a reference disclosing such timestamping would have been obvious in the Candelore device.

In rejecting claim 21, the Examiner takes official notice that lasers are well known cutting devices, and that it would have been obvious for one of ordinary skill in the art to protect against lasers, in addition to the breaking methods protected by Candelore. However, claim 21 is more specific and requires the sheet of frangible material to include a diffusive layer and/or a reflective layer. The Office Action fails to consider the foregoing requirements regarding a sheet of frangible material, a diffusive layer and/or a reflective layer. Consequently, the rejection of claim 21 is improper.

In view of the foregoing amendments and remarks, favorable reconsideration and allowance are respectfully requested and deemed in order.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 08-2025 and please credit any excess fees to such deposit account.

Respectfully submitted,

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